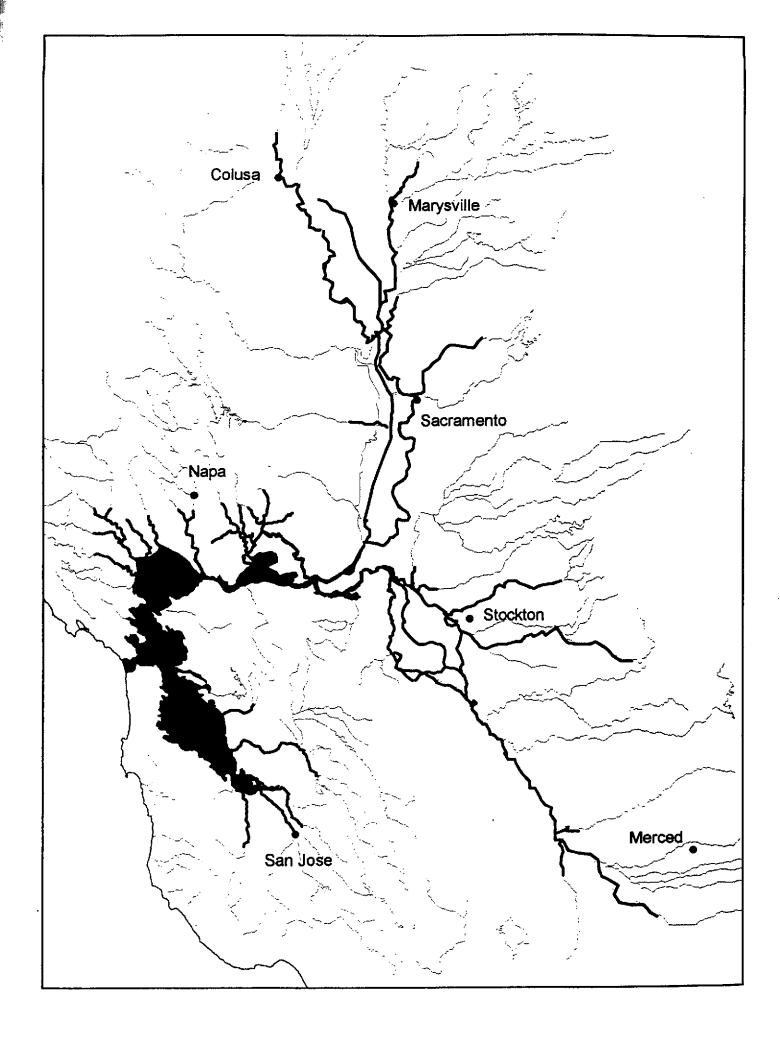
Overall Distribution of the Chinese mitten crab throughout the Bay-Delta Ecosystem (1997).

Reprinted with permission from the California Dept of Fish and Game.



Map of the location of primary field research (USGS Map, 1:100,000 scale) Tributaries where field research will occur are highlighted: Core monitoring sites are starred*

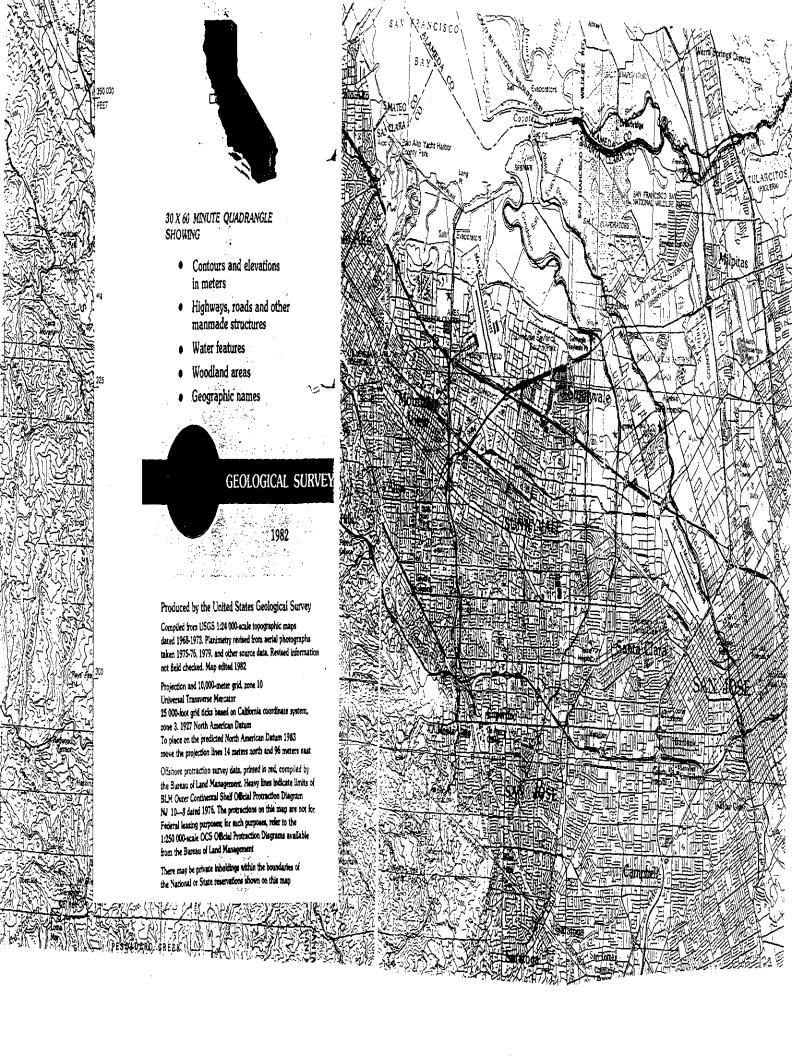
*Monitoring site locations:

Alviso Slough: Alviso Slough at Tasman Rd, Alviso Slough at 237

Guadalupe Slough: Guadalupe Slough at Tasman Rd, Guadalupe Slough at

Baylands Park

Stevens Creek: Stevens Creek at Crittenden Rd



Curriculum Vitae and Selected Publications of the Principal Investigator

SELECTED PUBLICATIONS

- Resh, V. H. and Rosenberg, D. M. (eds.). 1984. The Ecology of Aquatic Insects. Praeger Scientific, NY. 625 pp.
- Lamberti, G. A. and Feminella, J. W., and Resh, V. H. 1987. Herbivory and intraspecific competition in a stream caddisfly population. *Oecologia* 73:75-81.
- Statzner, B., Gore, J., and Resh, V. H. 1988. Hydraulic stream ecology: observed patterns and potential applications. *Journal of the North American Benthological Society* 7:307-360.
- Feminella, J. W. and Resh, V. H. 1989. Submersed macrophytes and grazing crayfish: an experimental study of herbivory in a California marsh. *Holarctic Ecology* 12:1-8.
- Jackson, J. K. and Resh, V. H. 1989. Distribution and abundance of adult aquatic insects in the forest adjacent to a northern California stream. *Environmental Entomology* 18:278-283.
- Bergey, E. A., Balling, S. S., Collins, J. N., Lamberti, G. A., and Resh, V. H. 1992. Bionomics of invertebrates within an extensive *Potamogeton pectinatus* L. bed of a California marsh. *Hydrobiologia* 234:15-24.
- Rosenberg, D. M. and Resh, V. H. (eds.). 1993. Freshwater biomonitoring and benthic macroinvertebrates. Chapman and Hall, New York. 488 p.
- Batzer, D. P. and V. Resh. 1993. Characteristics of invertebrates consumed by mallards and response to wetland flooding schedules. Wetlands 13: 41-49.
- Gore, J. A., Niemela, S., Resh, V. H., and Statzner, B. 1994. Near-substrate hydraulic conditions under artificial floods from peaking hydropower operation: a preliminary analysis of disturbance intensity and duration. Regulated Rivers 9: 15-34.
- Resh, V. H., Hildrew, A. G., Statzner, B., and Townsend, C. R. 1994. Theoretical habitat templets, species traits, and species richness: a synthesis of long-term ecological research on the Upper Rhône River in the context of concurrently developed ecological theory. Freshwater Biology 31: 539-554.
- Batzer, D. P. and Resh, V. H. 1994. Wetland management strategies, waterfowl habitat management, and mosquito control, pp. 825-832. In: W. J. Mitsch (ed.), Global Wetlands, Elsevier Publishers, Amsterdam.
- Resh, V. H., Norris, R. H., and Barbour, M. T. 1995. Design and implementation of rapid assessment approaches for water resource monitoring using benthic macroinvertebrates. *Australian Journal of Ecology* 20: 108-121.
- Hannaford, M. J. and Resh, V. H. 1995. Variability in macroinvertebrate rapid bioassessment surveys and habitat assessments in a northern California stream. Journal of the North American Benthological Society:14:430-439.
- Merritt, R. W., Resh, V. H., and Cummins, K. W. 1996. Design of aquatic insect studies: collecting, sampling, and rearing procedures. Pp.12-28. In: R. W. Merritt and K. W. Cummins, An Introduction to the Aquatic Insects of North America, 3rd Ed., Kendall/Hunt Publishing Company, Dubuque, Iowa.
- Hauer, F. R. and Resh, V. H. 1996. Benthic macroinvertebrates. pp. 339-369, In: F. R. Hauer and G. A. Lamberti (eds.) Methods in Stream Ecology. Academic Press, San Diego.

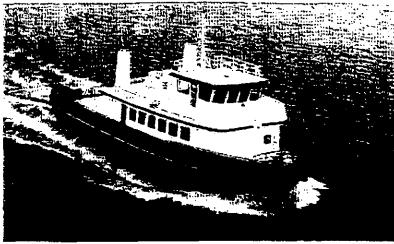
Proposal Quarterly Task Schedule

| | Summer 1999 | Fall 1999 | Winter 1999 | Spring 2000 | Summer 2000 | Fall 2000 | Winter 2000 |
|--|---------------------------------------|----------------------------------|------------------------------------|--|---|--|---|
| | Monitor | Monitor | Monitor | Monitor | Monitor | Monitor | Monitor |
| | distribution | distribution | distribution | distribution | distribution | distribution | distribution |
| | Baseline distribution | | | | Field enclosures - South Bay and Delta | Bank Impact Assessment | Bank Impact Assessment |
| | Food preference | Food preference | Food preference | | | Crayfish Lab interactions- Adult-Adult | Crayfish Lab interactions Adult-Adult |
| | Gut Content Analysis | Gut Content Analysis | Gut Content Analysis | Gut Content Analysis | | | |
| | | | Surveys to Crayfish industry | Analysis of Landing Receipt Data | | | Surveys to Crayfish industry |
| Spring 2001 | Summer 2001 | Fall 2001 | Winter 2001 | Spring 2002 | | | |
| Monitor distribution | Monitor distribution | Monitor distribution | Monitor Distribution | Data Analysis | | | |
| | Field Enclosures- Bay and Delta | Bank impact assessment | Bank impact assessment | Prepare Report | | | |
| Crayfish Lab interactions Adult-Juvenile Juvenile-Juvenile | | | | Publish and Disseminate Findings | | | |
| | | Analysis of MSI Trawl Data | Surveys to Crayfish industry | | | | |

Letters of Support and Notification:

Marine Science Institute
City of Sonoma
Santa Clara County
Santa Clara Valley Water District

April 7, 1998



Students of all ages discover science and marine biology abouted our new 90-foot research vessel

Dear CALFED Proposal Reviewer:

The Marine Science Institute is writing in strong support for Professor Vincent Resh's, application for funding under the 1999 CALFED proposal solicitation. We believe that the efforts of the this laboratory have and will continue to produce important information regarding the environmental health of our bay ecosystems and the risks to these ecosystems from invasive species.

Our organization has worked closely with Professor Resh and members of this laboratory on the introduction of the Chinese mitten crab into southern San Francisco Bay. Since 1996, we have shared our labor and equipment with Professor Resh to help gather trawl data on the distribution and abundance of the mitten crab in the south bay. It is our intention to continue to strengthen this relationship with Professor Resh and his laboratory in order to continue to generate research and awareness regarding this species and its impacts on the health of San Francisco Bay. We have agreed to serve as a resource for continuing research, and will provide such resources as a part of the efforts described by this proposal, so that the effects of this species on upstream ecosystems can be linked to their ecology in the bay.

The research conducted by Professor Resh's laboratory is consistent with our mission of K-12 environmental education and monitoring. Through our efforts and the efforts of Professor Resh's laboratory, we believe that this research will help raise public awareness and inform policy and management professionals regarding the ecology, impacts and control of invasive species in the San Francisco Bay and Delta ecosystems. We will continue to place our full support behind Professor Resh's research, and we hope that you will do the same.

Jeffrey Rutherford

President

All the best,

Marine Science Institute

PS. Our website is at www.sfbaymsi.org.



UNIVERSITY OF CALIFORNIA, BERKELEY

BERKELEY . DAVIS . IRVINE . LOS ANGELES . RIVERSIDE . SAN DIEGO . SAN FRANCISCO



SANTA BARBARA . SANTA CRUZ

COLLEGE OF NATURAL RESOURCES ENVIRONMENTAL SCIENCE, POLICY AND MANAGEMENT DIVISION OF INSECT BIOLOGY 201 WELLMAN HALL BERKELEY, CALIFORNIA 94720-3112

TELEPHONE: (510) 642--3327 FAX: (510) 642-7428

April 8, 1999

City of Sonoma Environmental Advisory Commission No. 1 the Plaza Sonoma, CA 95476

Dear Advisory Commission member:

I am contacting you about a proposal to conduct research that would take place in the city and county of Sonoma. I am a Berkeley student applying for a CALFED Bay-Delta grant for ecological research under the principle investigator Professor Vincent Resh of Berkeley. I will be examining the diet and feeding preferences of the Chinese mitten crab (*Eriocheir sinensis*) with emphasis on effects of this species on the endangered California freshwater shrimp (*Syncaris pacifica*). This research will help assess the impact of this recently-established invasive species on the ecosystem and management strategies designed to limit its population.

I will be collecting specimens of the Chinese mitten crab, and any data necessary for this project from Sonoma Creek at public access areas. I will not be collecting or using actual specimens of the California freshwater shrimp in my experiment. I have obtained all necessary permits for scientific collection of injurious wildlife from both the California Department of Fish and Game and the U.S. Department of Fish and Wildlife.

I do not intend to disturb Sonoma creek or its surroundings in any other manner. I hope that you will support this research project, as it has widespread implications for future decisions regarding the Chinese mitten crab. I thank you in advance for your cooperation. If you have any questions, please call or email me directly.

Sincerely,

Leah Rogers

University of California, Berkeley windnsea@uclink4.berkeley.edu

(510) 665-4240

Cc: City of Sonoma Planning Commision

UNIVERSITY OF CALIFORNIA, BERKELEY

BERKELEY . DAVIS . IRVINE . LOS ANCELES . RIVERSIDE . SAN DIEGO . SAN FRANCISCO



SANTA BARBARA • SANTA CRUZ

COLLEGE OF NATURAL RESOURCES ENVIRONMENTAL SCIENCE, POLICY AND MANAGEMENT DIVISION OF INSECT BIOLOGY 201 WELLMAN HALL BERKELEY, CALIFORNIA 94720-3112

TELEPHONE: (510) 642--3327 FAX: (510) 642-7428

April 7, 1999

Michael Lopez, planning office manager Santa Clara County Planning Office 70 West Hedding Street San Jose, CA 95110-1705

Dear Mr. Lopez:

I am writing to contact you regarding our interest in conducting research in Santa Clara County to begin this summer. I am a graduate student in the laboratory of professor Vincent Resh at the University of California at Berkeley. Our laboratory has over the past three years been involved in a study to monitor the abundance and distribution of the Chinese mitten crab, a recently-established non-indigenous crab that inhabits the the rivers and estuary of the South Bay.

Research conducted over the past few years has been conducted with the approval of Santa Clara Water Valley District, and we are again in contact with SCWVD in order to ensure that our proposal is in line with their needs and management responsibilities.

We wanted to take this opportunity to inform the county of our proposal to do research, and to invite any questions or commentary on our plans. The research will take place within the major tributaries to the South Bay in Sunnyvale, San Jose and Milpitas. We will not alter the physical habitat of the streams. We do intend to collect Chinese mitten crabs from these streams under appropriate permits from the state and federal government.

If you have any questions or would like to review a copy of the proposal we will be submitting to CALFED for funding consideration, please do not hesitate to contact me. Thank you for your time, and I look forward to hearing from you.

Sincerely,

Debbie Rudnick

510-642-6315

drudnick@nature.berkeley.edu

UNIVERSITY OF CALIFORNIA, BERKELEY

BERKELEY • DAVIS • IRVINE • LOS ANGELES • RIVERSIDE • SAN DIEGO • SAN FRANCISCO



SANTA BARBARA • SANTA CRUZ

COLLEGE OF NATURAL RESOURCES ENVIRONMENTAL SCIENCE, POLICY AND MANAGEMENT DIVISION OF INSECT BIOLOGY 201 WELLMAN HALL BERKELEY, CALIFORNIA 94720-3112

TELEPHONE: (510) 642-3327 FAX: (510) 642-7428

March 2, 1998

Dear Mr. Mahoney:

Per your request, I am writing with my proposal to conduct research in the Santa Clara Water Valley District on the abundance, distribution and impacts of the Chinese mitten crab on riparian systems. I am a graduate student at the University of California at Berkeley, and my lab holds a grant to study the ecology and impacts of this non-native species. The opportunity to access the river systems of your district will be invaluable to the success of our research. I hope that my work will be compatible with your agency's mission and expectations.

I. Type of Work:

Research will be conducted to monitor the abundance and distribution of the Chinese mitten crab, Eriocheir sinensis, throughout the South Bay. Observations and sampling of crabs will occur throughout several stream systems in the SCWVD. At this time, we are considering approximately 20 sampling stations for data collection. In addition, baseline sampling of benthic biota and physical data will be collected will be conducted in order to examine impacts of the mitten crab on river communities and bank stability. We also propose to install a series of cages for use in growth rate experiments with the mitten crab an freshwater crayfish. It is our hope that SCWVD will discuss with us concerns and options for siting this equipment.

II. Timeframe and length of study:

Based on agreement regarding this proposal, activities are planned to begin in April and continue throughout the remainder of this calendar year. Site sampling will occur once per month surrounding a daytime low tide, with occasional additional sampling of overall macroinvertebrate distribution and nocturnal observations of crabs to monitor diel behavioral changes. At this time, we are seeking funding to continue this research on a long-term basis, so there is potential to continue monitoring sites for an additional 2 to 4 years.

III. Number and Age of researchers:

At this time, myself, Professor Vincent Resh- our principal investigator and laboratory head- and one undergraduate research assistant are planning to conduct these studies. Occasionally, colleagues will accompany us to provide input. All individuals involved will be over 18.

IV. Access:

Most sites will be accessible by foot. However, there are some sites where the opportunity to park in or at SCWVD gates would make access easier, so this access is something I would like to be considered for/discuss further.

V. Location:

Please see attached map. At this time we would like to do further exploratory studies to get a sense of distribution of the population before confirming all sample sites. At this point, we have a few sample sites that are confirmed for continuous monitoring (see starred areas on map).

VI. Report Availability:

We will certainly make whatever information we get available and will happily discuss with you how to present this in a manner most compatible with SCWVD's needs.

Thank you for your consideration.

Sincerely,

Debbie Rudnick

Permit for collection and retention of the Chinese mitten crab

DISTUDENT



ORENEWAL



License and Revenue Branch

3211 "S" Street, Sacramento, CA 95816 (916) 227-2225

CHIONRESIDENT

Methods of Take: crab truos

Where/How Specimens Kept:

TRESIDENT

PERMIT MUST BE IN IMMEDIATE POSSESSION WHILE COLLECTING

partawhore Kent at 2014 William List. Ur Rectal no.

COMMERCIAL FISHING DGOVERNMENT CLASS STUDENT

specimens collected must be attached) DCOMMERCIAL FISHING **CLASS FACULTY**

(copy of previous permit and report of

COTHER

Read the instructions on the top copy before completing application. Type or print clearly. DATE OF BIRTH NAME CITY/STATE/ZIP DAY TELEPHONE **ADDRESS** 201 Wellman Hall AGENCYANSTITUTIONIFIRM NAME (SDL)642-6315 Beckelei Iniversit CITY/STATE/ZIP DAY TELEPHONE ADDRESS Rerkeleu CA 94720) <am College and commercial fishing class students must obtain the signature of one sponsor; private, scientific or educational collectors must have two signatures from professional staff of a college, museum or other scientific institution. SPONSOR'S NAME AND TITLE ORGANIZATION DAY TELEPHONE Jaiversit California (SIA poolessa CITY/STATE/ZIP SIGNATURE ADDRESS <u>201 luklima</u>n 94720 SPONSOR'S NAME AND TITLE ORGANIZATION DAY TELEPHONE CITY/STATE/ZIP SIGNATURE DATE ADDRESS ☐ Yes TNo (If yes, attach a photocopy of permit) Do you have a current Federal permit to capture or band live birds or salvage dead birds in Californial Requested authorization(s) (see reverse side of form) Describe the purpose, methods, number of specimens to be collected for your project and any other facts to justify the need to copture or possess any specimens. NOTE: Attach additional sheets if necessary. Attach a copy of your federal permit if you want to collect a federally listed threatened or endangered species. ods Will include crab traps institute. Who trawis Ashwater Crafishspecies. De to their designation is injoyerous

Proposal Budget Breakdown by task and by fiscal quarter

| | | 6/30/00 | | 6/30/01 | 7/1/01- | 6/30/02 | TO | TAL |
|--|-----------------|---------------|----------|------------|---------|------------|---------|---|
| | CalFed | Non-CalFed | CalFed | Non-CalFed | CalFed | Non-CalFed | CalFed | Non-CalFed |
| Salaries & Wages | Support | <u>Suport</u> | Support | Suport | Support | Suport | Support | Suport |
| Vincent H. Resh, P.I. @ 10% for 12 mos | | 12,947 | | 13,594 | | 14,274 | | 40,815 |
| Graduate Student Researcher (1) | | | | | | | | |
| (\$2,344; 2,391; 2,439 x 10 months @ 50%) | 11,720 | | 11,955 | | 12,195 | | 35,870 | |
| (\$2,344; 2,391; 2,439 x 2 mos x 100%) | 4,688 | | 4,782 | | 4,878 | | 14,348 | 1 |
| Lab Assistant I (1) | | | 10 | | | | | |
| (\$10.19; 10.39/hr x 12 mos x 50%) | 10,638 | | 10,847 | | | | 21,485 | |
| (\$10.60/hr x 12 months x 25%) | | | | | 5,533 | | 5,533 | |
| Subtotal Salaries | 27,046 | 12,947 | 27,584 | 13,594 | 22,606 | 14,274 | 77,236 | 40,815 |
| Benefits | | | | | | | | |
| P.1. @ 17% | | 2,201 | | 2,311 | | 2,427 | | 6.939 |
| CCD @ 1 200 (| 150 | | | | | ! | | |
| GSR @ 1.3% (academic year) | 152 | | 155 | | 159 | | 466 | |
| GSR @ 3% (summer) GSR-SHIP | 141 | | 143 |] | 146 | | 430 | |
| | 460 | | 483 | | 507 | | 1,450 | |
| GSR-Fee Remission | 3.96Q | | 4,158 | | 4.366 | | 12.484 | |
| Subtotal GSR | 4,713 | | 4,939 | | 5,178 | | 14,830 | |
| Lab Helpers 3% | 319 | | 325 | | 166 | | 810 | |
| Subtotal Benefits | 5,032 | 2,201 | 5,264 | 2,311 | 5,344 | 2,427 | 15,640 | 6,939 |
| Supplies (field and lab supplies) | 3,225 | | 2,240 | | 1,500 | | 6,965 | |
| | - | | | | 1,000 | | 0,703 | |
| Travel | | | | | | | | |
| Trips to San Jose, Tracy, Sonoma (125 mi @ | | | | | | 1 | | } |
| \$0.31/mi) | 1,395 | | 1,550 | | 1,163 | | 4,108 | |
| Trips to MSI (80 mi @ \$0.31/mi) | 25 | | 25 | | 25 | | 75 | |
| Subtotal Travel | 1,420 | | 1,575 | | 1,188 | | 4,183 | |
| TOTAL DIRECT COSTS | 36,723 | 15,148 | 36,663 | 15,905 | 30,638 | 16,701 | 104,024 | 47 754 |
| | | | 30,000 | ,,,,,, | 30,000 | 10,701 | 104,024 | 47,754 |
| INDIRECT COSTS @ 50.4% MTDC | 16,281 | 7,635 | 16,139 | 8,016 | 12,986 | 8,417 | 45,405 | 24,068 |
| TOTAL REQUEST | 53,004 | 22,783 | 52,802 | 23,921 | 43,624 | 25,118 | 149,429 | 71,822 |
| Note: Modified total direct costs = total cost | ts - GSR-SHIP o | nd GSR-Fee Re | emission | | - | | , | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, |

| | | 6/30/00 | | 6/30/01 | | 6/30/02 | TO | TAL |
|--|---------|--------------------------|---------------|------------|---------|------------|---------|------------|
| | CalFed | Non-CalFed | <u>CalFed</u> | Non-CalFed | CalFed | Non-CalFed | CalFed | Non-Calfed |
| Salaries & Wages | Support | Suport | Support | Suport | Support | Suport | Support | Suport |
| Vincent H. Resh, P.I. @ 10% for 12 mos | | 12,947 | | 13,594 | | 14,274 | | 40,815 |
| Graduate Student Researcher (1) | | | | | | | | } |
| (\$2,344; 2,391; 2,439 x 10 months @ 50%) | 11,720 | ļ | 11,955 | | 12,195 | | 35,870 | |
| (\$2,344; 2,391; 2,439 x 2 mos x 100%) | 4,688 | | 4,782 | | 4,878 | | 14,348 | |
| Lab Assistant I (1) | | | 1 | | | <u> </u> | | |
| (\$10.19; 10.39/hr x 12 mos x 50%) | 10,638 | } | 10,847 | } | | ļ | 21,485 | } |
| (\$10.60/hr x 12 months x 25%) | | | | | 5,533 | j . | 5,533 | 1 |
| Subtotal Salaries | 27,046 | 12,947 | 27,584 | 13,594 | 22,606 | 14,274 | 77,236 | 40,815 |
| Benefits | | | | | | } | | |
| P.I. @ 17% | | 2,201 | | 2,311 | | 2,427 | | 6,939 |
| GSR @ 1.3% (academic year) | 152 | | 155 | | 159 | | 466 | |
| GSR @ 3% (summer) | 141 | | 143 | | 146 | j | 430 | |
| GSR-SHIP | 460 |] | 483 | } | 507 | | 1,450 | |
| GSR-Fee Remission | 3.960 | | 4.158 | | 4.366 | | 12.484 | 1 |
| Subtotal GSR | 4,713 | | 4,939 | | 5,178 | | 14,830 | |
| Lab Helpers 3% | 319 | | 325 | | 166 | | 810 | |
| Subtotal Benefits | 5,032 | 2,201 | 5,264 | 2,311 | 5,344 | 2,427 | 15,640 | 6,939 |
| Supplies (field and lab supplies) | 3,225 | | 2,240 | | 1,500 | | 6,965 | |
| Travel | | | | | | | | 1 |
| Trips to San Jose, Tracy, Sonoma (125 mi @ | | } | |] | | | | ļ |
| \$0.31/mi) | 1,395 | | 1,550 |] | 1,163 | | 4 100 | |
| Trips to MSI (80 mi @ \$0.31/mi) | 25 |] | 25 |] | 25 | | 4,108 | |
| 111ps 10 19131 (00 1111 @ \$0.01/1111) | 20 | | 25 | | 20 | | 75 | |
| Subtotal Travel | 1,420 | | 1,575 | | 1,188 |] [| 4,183 | |
| TOTAL DIRECT COSTS | 36,723 | 15,148 | 36,663 | 15,905 | 30,638 | 16,701 | 104,024 | 47,754 |
| INDIRECT COSTS @ 10% MTDC | 3,230 | 1,515 | 3,202 | 1,591 | 2,577 | 1,670 | 9,009 | 4,775 |
| TOTAL REQUEST | 39,953 | 16,663 and GSR-Fee Re | 39,865 | 17,496 | 33,215 | 18,371 | 113,033 | 52,529 |

| 7/1/99-6/30/00 | | Sept | Oct- | Dec | Jan- | Mar | Apr- | June | TO | TAL |
|--|---------|----------------|---------|--------|----------------|----------|---------|---------------------------------------|---------|----------|
| | CalFed | Non- | Calfed | Non- | CalFed | Non- | CalFed | Non- | CalFed | Non- |
| Salaries & Wages | Support | Calfed | Support | CalFed | <u>Support</u> | CalFed | Support | CalFed | Support | CalFed |
| Vincent H. Resh, P.I. @ 10% for 12 mos | | 3,236 | | 3,237 | | 3,237 | | 3,237 | | 12,947 |
| Graduate Student Researcher (1) | | | | | | | ļ | i | | |
| (\$2,344 x 10 months @ 50%) | 2,344 | | 3,516 | · | 3,516 | | 2,344 | | 11,720 | |
| (\$2,344 x 2 mos x 100%) | 2,344 | | | | | | 2,344 | | 4,688 | ļ |
| Lab Assistant I (1) | | | | | | | | | | |
| (\$10.19/hr x 12 mos x 50%) | 2,659 | | 2,659 | | 2,660 | | 2,660 | | 10,638 | |
| Subtotal Salaries | 7,347 | 3,236 | 6,175 | 3,237 | 6,176 | 3,237 | 7,348 | 3,237 | 27,046 | 12,947 |
| Benefits | | | | | | : | | | | |
| P.I. @ 17% | Ì | 550 | | E E O | | CC1 | | 550 | | |
| F.I. & 17% | | 550 | | 550 | | 551 | | 550 | | 2,201 |
| GSR @ 1.3% (academic year) | 30 | | 46 | | 46 | | 30 | | 152 | ļ |
| GSR @ 3% (summer) | 70 | | 0 | | 0 | | 71 | | 141 | |
| GSR-SHIP | ļ | | 230 | | 230 | | | | 460 | |
| GSR-Fee Remission | | | 1.980 | ! | 1.980 | | | | 3.960 | |
| Subtotal GSR | 100 | | 2,256 | , | 2,256 | | 101 | | 4,713 | |
| Lab Helpers 3% | 79 | : | 80 | | 80 | | 80 | · · · · · · · · · · · · · · · · · · · | 319 | |
| Subtotal Benefits | 179 | 550 | 2,336 | 550 | 2,336 | 551 | 181 | 550 | 5,032 | 2,201 |
| Supplies (field and lab supplies) | 1,230 | | 810 | | 810 | <u> </u> | 375 | | 3,225 | |
| | | | | | | | | | 0,220 | |
| Travel | [| | | | | | | | | |
| Trips to San Jose, Tracy, Sonoma (125 mi @ | [| | 1 | | ŧ . | | | | | } |
| \$0.31/mi) | 465 | | 465 | | 232 | | 233 | | 1,395 | |
| Trips to MSI (80 ml @ \$0.31/ml) | | | 25 | | | | | | 25 | |
| Subtotal Travel | 465 | | 490 | | 232 | | 233 | | 3.420 | |
| WOOD IN THE | 400 | [- | 470 | | 202 | | 200 | | 1,420 | <u> </u> |
| TOTAL REQUEST | 9,221 | 3,786 | 9,811 | 3,787 | 9,554 | 3,788 | 8,137 | 3,787 | 36,723 | 15,148 |

| 7/1/00-6/30/01 | July - | Sept | Oct- | Dec | Jan- | Mar | Apr- | June | TO | TAL |
|--|----------------|--------|---------|--------|---------|--------|----------------|--------|-----------------|--------|
| | CalFed | Non- | CalFed | Non- | CalFed | Non- | CalFed | Non- | Calfed | Non- |
| Salaries & Wages | Support | CalFed | Support | Calfed | Support | CalFed | Support | CalFed | Support | CalFed |
| Vincent H. Resh, P.I. @ 10% for 12 mos | | 3,398 | | 3,398 | | 3,399 | | 3,399 | | 13,594 |
| Graduate Student Researcher (1) (\$2,391 x 10 months @ 50%) (\$2,391 x 2 mos x 100%) | 2,391 2,391 | | 3,586 | | 3,587 | | 2,391 2,391 | | 11,955 4,782 | |
| Lab Assistant I (1) | | • | | | | | | | | |
| (\$10.39/hr x 12 mos x 50%) | 2,711 | | 2,712 | | 2,712 | | 2,712 | | 10,847 | |
| Subtotal Salaries | 7,493 | 3,398 | 6,298 | 3,398 | 6,299 | 3,399 | 7,494 | 3,399 | 27,584 | 13,594 |
| Benefits | | | | | | | | | | |
| P.I. @ 17% | | 577 | | 578 | | 578 | | 578 | | 2,311 |
| GSR @ 1.3% (academic year) | 30 | • | 47 | | 47 | | 18 | ' | 155 | |
| GSR @ 3% (summer) | 72 | | 0 | | 0 | | 71 | | 143 | |
| GSR-SHIP | | | 241 | | 242 | | | | 483 | |
| GSR-Fee Remission | | | 2.079 | | 2,079 | | | | 4.158 | |
| Subtotal GSR | 102 | | 2,367 | | 2,368 | | 102 | | 4,939 | |
| Lab Helpers 3% | 81 | | 81 | | 81 | | 82 | | 325 | |
| Subtotal Benefits | 183 | 577 | 2,448 | 578 | 2,449 | 578 | 184 | 578 | 5,264 | 2,311 |
| Supplies (field and lab supplies) | 1,000 | | 420 | | 410 | | 410 | | 2,240 | |
| | | | | | | | | | | |
| Travel | | | | | | | | | | |
| Trips to San Jose, Tracy, Sonoma (125 mi @ | | | | | | | | | | • |
| \$0.31/mi) | 698 | | 388 | | 232 | | 232 | | 1,550 | |
| Trips to MSI (80 mi @ \$0.31/mi) | | | 25 | , | | i I | | | 25 | |
| Subtotal Travel | 698 | | 413 | | 232 | | 232 | | 1,575 | |
| TOTAL REQUEST | 9 <u>,</u> 374 | 3,975 | 9,579 | 3,976 | 9,390 | 3,977 | 8,320 | 3,977 | 36,663 | 15,905 |

| 7/1/01-6/30/02 | July - | Sept | Oct | Dec | Jan- | -Mar | Apr- | June | TO | TAL |
|--|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|
| | CalFed | Non- |
| Salaries & Wages | Support | CalFed |
| Vincent H. Resh, P.I. @ 10% for 12 mos | | 3,568 | | 3,568 | | 3,569 | | 3,569 | | 14,274 |
| Graduate Student Researcher (1) | | ! | | | | | | | | |
| (\$2,439 x 10 months @ 50%) | 2,439 | | 3,658 | | 3,659 | | 2,439 | | 12,195 | i |
| (\$2,439 x 2 mos x 100%) | 2,439 | ' | | | | | 2,439 | | 4,878 | |
| Lab Assistant I (1) | | | | | | | | | | |
| (\$10.60/hr x 6 mos x 50%) | 2,766 | | 2,767 | | | | | | 5,533 | |
| Subtotal Salaries | 7,644 | 3,568 | 6,425 | 3,568 | 3,659 | 3,569 | 4,878 | 3,569 | 22,606 | 14,274 |
| Benefits | | | | | | | | | | |
| P.I. @ 17% | | 606 | | 607 | | 607 | | 407 | | |
| | | 000 | | 007 | · | 607 | | 607 | | 2,427 |
| GSR @ 1.3% (academic year) | 31 | | 48 | | 48 | ! | 32 | | 159 | |
| GSR @ 3% (summer) | 73 | | | | | | 73 | | 146 | |
| GSR-SHIP | | | 253 | | 254 | | | | 507 | |
| GSR-Fee Remission | | | 2.183 | | 2.183 | | | | 4.366 | |
| Subtotal GSR | 104 | | 2,484 | | 2,485 | | 105 | | 5,178 | |
| Lab Helpers 3% | 83 | | 83 | | 0 | | 0 | | 166 | |
| Subtotal Benefits | 187 | 606 | 2,567 | 607 | 2,485 | 607 | 105 | 607 | 5,344 | 2,427 |
| Supplies (field and lab supplies) | 1,000 | | 250 | | 250 | i | | | 1 500 | |
| 1, | .,000 | | 200 | | 230 | | | | 1,500 | |
| Travel | | | | | | | | | | |
| Trips to San Jose, Tracy, Sonoma (125 mi @ | | | | | | | · . | | | |
| \$0.31/mi) | 698 | | 233 | | 232 | | | | 1,163 | |
| Trips to MSI (80 ml @ \$0.31/mi) | | | 25 | | | | | | 1,103 | ļ |
| Subtotal Travel | 698 | | 258 | | 020 | | | | | |
| | 070 | | 230 | | 232 | | 0 | | 1,188 | |
| TOTAL REQUEST | 9,529 | 4,174 | 9,500 | 4,175 | 6,626 | 4,176 | 4,983 | 4,176 | 30,638 | 16,701 |

| 7/1/991-4/30/02 | | | eat 1 | | | | par 2 | | | | | |
|---|-------------|---------|----------------|-----------------|--|--|-----------------|---------------------------------------|--|---|--|----------------|
| | | | 1 | : . | <u> </u> | | | ; | | 1 | Hour 3 | |
| Took Detail Monifor Distribution (and bank assessment) | <u> </u> | Q1r2 | ; <u>Str.1</u> | ` <u>©n 4</u> | 821 | Gt: 2 | CE 3 | Str.4 | SET. | 2#1 | 1 | - 15 × 1 |
| Sciones & Benefits | [| ; ; | i | ; | | ; |) | • | | Ì | | * 1 |
| Pr (cost share) GSR | 2,394 | | | | 1221 |)' (1986 . 693 | | | 1,24 | | 1.536 | 11:34 |
| Lab Asst | 1 | 274 | 274 | 274 | 1,3% | Z.793 | 2.514 | 2.794 | 1,42 | | | OF X |
| SAE Troval | 670 233 | | | 250 233 | 250 233 | | | | 250 | | | |
| Subtatal-Monitor Distribution (and bank asse | | | | 1,984 | 3,100 | | | | 3,15 | | | -4-0 |
| Fouding Preference Sciones & Benetits | | : | i | | | (47) | | 3,1 | | 35 | , a , | 7- 2 00 |
| FT (COST STORE) | (946 | 1 1946 | ;) | a t | | | | | | | | |
| GSR | 478 | 577 | ; 577 | | 1 | | | | | | | 38 |
| lab Asst. | 1,369 | | | , | | | 38.50 | [| | 12 . | 100 | \$4 5 |
| Trends | 232 | - | | es à | | | 1 1 1 1 | 12.00 | /* · | (A.,) | 1 | 3 |
| SubtolalFeeding Preference Gut Content Analysis | 2,514 | 3.436 | 3,204 | 0 | . 0 | 100 | 0 | × 0 | 0 | A | >> 0 | 10 |
| Sciones & Benefits | 1 | : | : | : | } | 1 | 13 " | | (1000) (1000) | | 沙东 | |
| PI (cost shore) | {946 | | | | <u> </u> | 13.0 | | 1 | | | | |
| GSR Lob Aset. | 1,916 | | 1 | 2.466 | | 1 3.7 | | | 1356 | | 14. | |
| SAE | 125 | | 125 | 125 | 7 : | | 40 pg | | . * 1 | 120 | 1 | |
| Trovel SubfoldiGut Content Analysis | 3,410 | 2,131 | 974 | L | | 2. 22. | 3.4 | C. 25 | ি বুল চ | 13000 | | £ |
| MSI Trawi Counts | 3,410 | 2.131 | 174 | 2,591 | - 0 | | 0 | ~ (1) | 3 Cm 0 | 0 | | |
| Sciones & Benefits | | 1 | 1 | | |] | | [基金 | 4.5 | | *** | 100 |
| # Pf (cost share) # GSR | 1 | 577 | 1 | 1 | | 595 | 13.18 | Larg | | 614 | 44 | 3 |
| Lab Asrt. | | [", | 1 | 3.3 | } } ! | 342 | 100 | 13.3 | | 713 | 10.0 | |
| S&E Transi | 1300 | - | ∫ .:· | | 186 to 120 to 130 to 13 | | 1.500 | | | | | |
| Travel Subtotal—MSI Travel Counts | 22 2 O | 602 | 0 | × 4.0 | 0 | 620 | 1.7 . A U. D | 1 A44 0 | ************************************** | 1 342 | | |
| Surveys to Craytien/Shrimp Industry | 1.3 | 1 | | | 1.5 | 2.55 | [<u> </u> | 1000 | J. 1980. | | 7 100 100 100 | |
| Sciones & Benefits Pl (cost shore) | 32 | | (1894) | (a.c.) | 1000 | | mar. | | 3 3 | 機 | (4) 70 | |
| GSR | | ** 3.21 | 1,732 | 1.4 | 3 2 | 1 | (995) 1,488 | | 2.35 | | (4) 76) 4,608 | |
| LOD Asst. | 4. | | | 100 | 100 | | 279 | 3 | | | | 80.8 |
| ÇSBE Travel | 14.5 | 100 | 1 | | | | | 100 | | | | 2.0 |
| SubtotalSurveys to Craylan/Shrimp Industry | | 0 | 1,732 | 0 | ٠ ٥ | 0 | 1,767 | 4 0 | * 0 | . 0 | 4,608 | J. Carlo |
| Overeight and Closure of GCA and Feeding Sciones & Benefits | * . | 18 54 | 25, | | | | | 3.3 | | N. S.W. | 20.3 | 3. S. S. |
| Pi (cost share) | | 30 | | (1894) | (Å) | | | | | | | |
| GSR | 56 A | | | 1,196 | 350 | | | | | | | |
| i Lop Asst. isae | A NOW | 1 | 445 | | | | 233 | | | | | Ž., Š |
| fravel | 2.00 | | fare. | | 15 C 15 | an de C | \$150 | 40.7 | | | | |
| Subtatal Oversight and Closure of GCA and F | ~ @ , < D | 1.542 0 | 30 840 0 | 1,196 | , # · · · O. | Markey D | Africa O | · 30 | 沙水源 0 | 360×30 | 8 . O | |
| Analysis of Landing Receipt Data Sciones & Benefits | 23.34 | | 35.76 | Į | | | A 49.2 | 1 | | 5 196 | 李章 | X |
| PI (cost shore) | | | 2.0 | (1704) | | Section . | 1,226 | | | | | £ j.4 |
| GSR Lop Asst. | 35. | | | 2,394 | | | | | 48,47 | | | |
| SAE | 1 | | 188 | ŀ | 1 | | | 3 | | | | |
| Nave | 3015 | - 3 | | | | 7X | Sec. 34. | | 18.00 | \$ 3 | | |
| SubtotalAnalysis of Landing Receipt Data Field Enclosures | , 0 | * O | | 2,396 | • | * 0 | 0 | D | ° €D | 0 | 0 | |
| Sciones & Benefits | 1.6 | | | 2 3 3 4 | ? | . V. W 3 | | Acc. | | [| | |
| PI (costsharare) GSR | | 12(3) | | 400 | [2981] | 7.7 | 3.5 | | (3131) | | To be | 11.74 |
| Lob Asst. | | 1 | | | 3,563 | 250 | 3.42 | | 3,737 1,424 | 1.843 | 1 | |
| SAE | | | î., | | 750 | 984 | (4× ; ∫ | | 750 | Ì | 4 | 3 |
| Travel Subtotal – Retal Enclasures | D | D. | 0 | 0 | 465 6,274 | ************************************** | 0 | : * ^. :: 0 | 6,376 | 1,843 | * 8.7 A | On the |
| Sehavioral Interaction | 1 | | | | | | · · · · · · · · | | | 1 | | |
| Solories & Benefits Pl (cost share) | 1 | | 3 3 A | | | (1000-) | ,,,,,, | | | | | 7 C 3 8 |
| GSR | | | 23 | - 3 E | | (1988) 4,465 (| (1988) 2,979 | (2982) 3 663 | 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | (2068) 1,842 | | |
| Lob Asst. | 83 | " H "Jo | | | | - (| ļ | 1 | | | 8. X | No. |
| S&E Trovel | | | | | | 170 (155 ! | 160 | 160 | ~ & | 1. | | 1999 |
| Sulatoksi Behavloral Interaction | 0 | 0 | 0 | | 0 | 4,790 | 3,139 | 3,673 | · · · · · · · · · · · · · · · · · · · | 1,142 | | ¥0 |
| Data ComPi (casi share)lation and Analysis Salarits & Benefits | 1.5 | | | 7 | . i.e., . i | · 3/ · · ·] | | | - [| . B | .33 | |
| Pt (Cost shore) | 3 |) | | | . [| | | | ा हैं। | | | (1044) |
| GSR | | 1 | 0.1 × | , [| % ∤ | | İ | | - 14 | | | 2.491 |
| Lab Asar. SRE | l | . ∱ | | | | | | | 1,20 | | | 1 |
| Travel | | | | الروائي المراجع | | <u> </u> | | | \hat{x}_{ij} | 2000 r | | _ |
| Subfolds—Data Comff (cost share)lation and As Prepare Report | 0 | -0 | 0 | v · : 0 | 0 | 0 | . 0 | 20.0 | 0 | **** O | 8140 | 2,491 |
| Sciones à deneffs | | | | | | \$. | | | 3 | 要引 | | |
| 전 (cost shore) | | | 12 | 7.6 | | with | |) [[| | | | (1044) |
| GSR Lab Asrr. | ** | | | ** * . | 188.71 P | 18.5 | | | | | | 1.246 |
| S&E · | | 1 | | | | | | S 20 0 1 | | 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | | - } |
| Travel | | | | | | | | ? w'^ | | 17 (Mar. 14) | | |
| Sublates Prepare Report Publish and Disseminate Findings | 0 | 0 | 0 | 0 | 0 | - 0 | 0 | · · · · · · · · · · · · · · · · · · · | - 0 | 0 | 100 | 1,244 |
| Solories à Benefits |]: · . | . 1 | | | | | | | | | · 🐫 | - 1 |
| PI (cost share) GSR | , , | · } | 4.15 | 330 | | * } | | | | | | (2088) |
| Lob Asrt. | | | | - (\$2) | × | : _} } | | <i>i</i> 1 | | | | 1.246 |
| S&E | 100 | | 720 | 158 | 200 | 12.77 | 10.3 | | * * | 緣外 | 7 | j |
| Travel Subtatal—Publish and Disseminate Findings | 0 | 0 | C C | | 372×74 | <u> </u> | <u> </u> | 0 | <u> </u> | · · · · · · · · · · · · · · · · · · · | ************************************** | 1 744 |
| THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON OF T | | | - 41 | _ 0 | | 0 | 0) | | (0) | 50 to 10 3 | ************************************** | 1,244 |

| ask Detail Ionitor Distribution (and bank assessment) alarles & Benefits Pi (cost share) | Qtr 1 | Qtr2 | 0 1-0 | | | | | | | | | - Sec. 10 - 10 7 10 10 11 11 11 11 11 11 11 11 11 11 11 |
|---|---|------------|--------------|---|---------------|--|-----------------|---------------------------------------|--|--|---------------------------------------|---|
| tonitor Distribution (and bank assessment) plartes & Benefits | <u> 2011 1</u> | | | 04.4 | | Ol- 0 | میما | 0 1-4 | ! | | | A. 10 |
| plarles & Benefits | 1 | | Qtr.3 | Qtr4 | Qtr1 | Qtr 2 | Qtr 3 | <u>Qtr.4</u> | SILT. | Otr 2 | Qtr 3 | |
| T | 4 | ł i | | | | | | | | | · | |
| Pi (COSI share) | 2000 | (3000 | (0.43) | (100) | (00.1) | (1000) | 400.0 | (nan) | | | | |
| GSR | (1894) | | (947) | (189) | | (1988) | (994) | (995) | | | | |
| Lab Asst. | 2,394 | 2,886 | 2,886 | 1,197 | 1,221 | 893 | 1,488 | 1,221 | 1,245 | 1,843 | 1,536 | |
| RE | 670 | 274 250 | 274 250 | 274 | 1,396 | 2,793 | 2,514 | 2,794 | 1,425 | 2,137 | | |
| | , | , | | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 422 |
| avel | 233 | 233 | 233 | 233 | 233 | 233 | 232 | 232 | 233 | 233 | 232 | |
| ubtotalMonitor Distirbution (and bank asse | 3,297 | 3,643 | 3,643 | 1,954 | 3,100 | 4,169 | 4,484 | 4,497 | 3,153 | 4,463 | 2,018 | 10 |
| eding Preference | 1 | } . | | and the second | | | e de la company | | 1.00 | 36.6 | | |
| claries & Benefits | 040 | (0.44) | 10.17 | rapotrii i | 4-7-41 | | \$ \$ \$ 50 | | ************************************** | 4.4 | | |
| PI (cost share) | (946) | | (947) | | | | | MA TEL | | 41 40 44 | | |
| GSR | 478 | 577 | 577 | | | | | | | | 17.00 | |
| Lab Asst. | 1,369 | 2,192 | 2,192 | | 4.86 | | A British | | Same de | | | |
| \$E | 435 | 435 | 435 | 新华拉克 克 | 7 TO 1 | 1.00 | Marchet - 6 | | | 等位分 | 235- | 40 |
| avel | 232 | 232 | | \$10 G 30 | Selection is | 11/2/2016 | 100000 | 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | ara de | G 200 | BY THE CAL | 经验的 新 |
| ubtotalFeeding Preference | 2,514 | 3,436 | 3,204 | 0 % | 0. | (A) | 3 18 5 0 | | 0 | ************************************** | 0 | *** ********************************* |
| ut Content Analysis | 1 | | | | | THE 25 | 7 | | | | 100 | |
| alaries & Benefits | ĺ | [| | | | 4 | A 100 MA | | 44 C. X. | and the same of | | 1000 |
| PI (cost share) | (946) | | | | 44 | 100 | | 37.25 | | (2)(2)(4) | 70 6 90 | |
| GSR | 1,916 | 1,732 | 577 | | | | -4. | | | | A . | |
| Lab Asst. | 1,369 | 274 | 274 | 2,466 | | | | | | | | 1 |
| &Е | 125 | 125 | 125 | 125 | | 0.00 | | 100 | | | | S452 6 |
| avel | 1 | | | | | | | to death of the | | a second of | *** | Party Control |
| ubtotalGut Content Analysis | 3,410 | 2,131 | 976 | 2,591 | 0 | ************************************** | | 0. | • 0 | ************************************** | · · · · · · · · · · · · · · · · · · · | **0 |
| ISI Trawi Counts | A STANCE | | | | | | 3.6 | | | | and the same of | A STATE OF THE STATE OF |
| alaries & Benefits | | 1 | 100 | 4.00 | 30.4 |] | Lie di pe | | | , | | |
| Pi (cost share) | 100 March 100 | | 3.16 | riche de | 100 | i | stady 💰 🛊 | 71.04 | September 1 | | 119.04.5 | A STORY |
| GSR | | 577 | 7.77 | | 74 to | 595 | 11.0 | | | 614 | | |
| Lab Asst. | | | | | 62. | } | | | | 713 | | 7 |
| &E | 1 | | | | | | 10 | | | | | |
| avel | 31977 | 25 | A 19 | 10.00 | A Section | 25 | 2014 | 10000000 | | 25 | 10.348.8 | 为代数化 |
| ubtotalMSi Trawi Counts | 14 O | 602 | ** ** O | ********O | 0 P | 620 | \$ 2 YO | ****O | ₹/46 % O. | 1,352 | 1. 10 O | 7 30 0 |
| urveys to Crayfish/Shrimp Industry | Lavor. | 3000 | | 70 m | 10 | 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | | 300 | | | | 23.83 S A |
| alaries & Benefits | 上多数数 | 以解釋排 | } | | | | | | | 35.5 | | |
| PI (cost share) | | | (1894) | *************************************** | | | (995) | 13 15 15 16 | を 場合して | | (4176) | 都特益 |
| GSR | - 12.54 | 4 | 1,732 | **** | 214 | 30.160 | 1,488 | | | | 4,608 | N. 1888 |
| Lab Asst. | 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - | | | | | | 279 | | | | 7,000 | |
| %E | 14. | | | | | | [[| | | | | |
| avei | | Par no | | 1.7 | | | | | | | | COLUMB . |
| ubtotalSurveys to Crayfish/Shrimp Industry | 3 77 0 | 0 | 1,732 | *40 | 0 | ****0 | 1,767 | 0 | 0 | 7.0 | 4,608 | ** |

| Oversight and Closure of GCA and Feeding | | | | 1 | | | No. | | | | | Colores a |
|---|--|--|---------------------------------------|-------------------|----------------------|---------------|--|-------------------|--|--------------|----------------------|-------------|
| Salaries & Benefits | | | | 1 | | | 100 | | | 40.11 | | 3.03.00 |
| PI (cost share) | | 33.50 | THE SHAPE | (1894) | | | | | | 100000 | 的第二人称 | |
| GSR | 1. 13. 14. | A WAR | · 野,吃到 | 1,196 | | | 8333 | 国际的 | | | | |
| Lab Asst. | i | 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1 | | | 1000 | | | 1000 | | | | |
| S&E | 1, 5 | 200 | | • | BENEFAL TO | | | | | | All mars of the mars | |
| Travel | 1 () () () () () () | | | ł | | - 37 - 470 34 | 0.000 | | | | | |
| SubfotalOversight and Closure of GCA and Fo | 0 | (C) (D) | 0 | 1,196 | 3 S 0 | 0 | 0 | O | 0 | o c | 0 | <u> </u> |
| Analysis of Landing Receipt Data | | | 13.85.82 | | 3020 | 100 | 2 12 2 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 | 331.423.31.2 | 1000 | 100 100 100 | - | |
| Salaries & Benefits | | | | | 100 m | | | | | | | |
| Pl (cost share) | | | | (1704) | 75 | , Q. (gill), | | | | | *** | 1 |
| GSR | <u></u> | \$ 4 Vage | 1.75.07 | 2,396 | | 30 | | 2,, % | | | | |
| Lab Asst. | 2 03 14 X | | | | | | Bally arr. | 人。 | 1 | 1. 1. 1. | | 1 1 4 1 (8) |
| S&E | | Little de santane | 37 37 3 | | 17.3 K) 1 - 82 K) | a serie car | 3.3. A | To all the second | A + 000 + | | | 1 |
| Iravel | ł · | | | { | | a grant in | 1 25 1 3 1 5 | 10 1 to 10 1 1 | | | | |
| SubtotalAnalysis of Landing Receipt Data | 0 | 0 | 0 | 2,396 | 0 | 0 | 0 | 700 | 0 | 0 | O C | <u> </u> |
| Field Enclosures | | | 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | 14.81 81 7.05 | <u> </u> | 7.5 | | 43.3 | | - | | <u>u</u> |
| Salaries & Benefits | , | | | | | | | . ' . ' | Ì | 1 | | |
| PI (cost strare) | | | 1. 1. 1. 1. 1. | Y* | (2981) | 16,000 | | S. 15 | (3131) | (2087) | | |
| GSR | | " 18 . T S. | 1 m 1 m | 200 | 3,663 | | 7. | | 3.737 | 1,843 | 1000 | : ₹ |
| Lab Asst. | | | | | 1,396 | 10 | } . , | | 1,424 | 1,040 | } | |
| S&E | 1 | | | | 750 | | | | 750 | • | | |
| Travel | | | | | 465 | | | | 465 | | | |
| SubtotalField Enclosures | **0 | ************************************** | 5 CO 100 | 0 | 6,274 | 0 | 0 | × 0 | 6,376 | 1,843 | 0 | 6 |
| Behavioral Interaction | | 13.20 | 1, 1,63% | | Jan 35 | | | [<u>-</u> | 0,070 | 1,043 | <u> </u> | U |
| Salaries & Benefits | 3 83 | 1000 | | (数・投りま) | e de la la |] | } | ! | | | } · | , |
| Pl (cost share) | | The second | 337.5 | Standard Standard | | (1988) | (1988) | (2982) | 1 × 10 × 1 | (2088) | | . <u>.</u> |
| GSR | | C5-542-3 | | لإرجاء الأر | 40.47 | 4,465 | 2,979 | 3,663 | *** ********************************** | 1,842 | | |
| Lab Asst. | | 1 4 4 5 | | 7.50 | O _j | | | 0,000 | | 1,042 | | * |
| S&E | | | | | | 170 | 160 | 160 | | | | |
| Travel | 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1 | ********* | | | | 155 | 100 | 100 | | | | |
| SubtotalBehavioral Interaction | Ð | `` ° < 0 | D. | 0 | 0 | 4,790 | 3,139 | 3,823 | Ô | 1,842 | 0 | 0 |
| Data ComPt (cost share)lation and Analysis | 7.3 | 250 (300) | 24.5 | | | 7,7 | 3,10, | 0,020 | | 1,042 | | <u> </u> |
| Salaries & Benefits | | 1400 | 大 語對為 | | | | | | | | | |
| PI (cost share) | | | 1 V. 1. | 15 . | 1 | 184 | | | | | | (1044) |
| GSR | 1.5° | | 14 1/2 | | 3, 94 | | - | | | | | (1044) |
| Lab Asst. | | | | | | | | | | · | | 2,491 |
| 5&E | 4 | | | Carlotte Control | 987. 85.81 | A FRANCIS | 13800 | | * | | 7 · \ \ \ | |
| Travel | | | | | | | \$1 | } | | | | |
| SubtotalData ComPl (cost share)lation and A | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | D | 2 401 |
| | | · | | | L | _ | L | | | U | ָּי ט | 2,491 |

| Prepare Report Salaries & Benefits PI (cost share) GSR Lab Asst. S&E Travel | | | | | | | | | | | | | (1044) 1.246 |
|---|-------------|----|-----------|-----------|--------------|------|---------|---------|-----|---------|---|---|-----------------|
| SubtotalPrepare Report | 10.1 | 0. | • · · · O | 3/33/17/0 | ** (4.5 % O. | ** G | 150 150 | * O | 300 | · · · 0 | 0 | 0 | 1,246 |
| Publish and Disseminate Findings Salaries & Benefits Pt (cost share) | | | | | | | | | | | | | |
| GSR Lab Asst. | | | | | 1. MAN | Ž. | | 66,66 | | | | | (2088) 1,246 |
| S&E fravel | · · · · · · | | | | | | | A group | | | | | |
| SubtotalPublish and Disseminate Findings | | 0 | 0 | . 0 | .0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1,246 |

Attachment 7b: Estimated costs of equipment

Sheet1

Estimated Costs of Equipment

| ltem | Quantity | Price per Item \$ | Total Price \$ |
|---|----------|-------------------|----------------|
| Shrimp (Palaemonetes spp.) | 300 | 0.75 | 225 |
| Aquarium tank (10 gallon) | 24 | 35 | 840 |
| Aquarium tank (20 gallon) | 4 | 60 | 240 |
| Aquarium accessories (nets, filters, substrat | | 30 | \$500 |
| Waist-high waders | 2 | 60 | 120 |
| aquatic nets | 2 | 20 | 40 |
| Replacement costs for wear and tear: | _ | | 70 |
| Measuring equipment | | | \$3,000 |
| Preservation and Dissection equipment | | | \$500 |
| Enclosure and Tagging Equipment | | | \$1,500 |
| TOTAL | | | 6965 |

OMB Approval No. 0348-0043 2. DATE SUBMITTED Application Identifier APPLICATION FOR **FEDERAL ASSISTANCE** 1. TYPE OF SUBMISSION: 3. DATE RECEIVED BY STATE State Application Identifier _ur St Application Preapplication ☐ Construction Construction 4. DATE RECEIVED BY FEDERAL AGENCY Federal Identifier X Non-Construction ■ Non-Construction 5. APPLICATION INFORMATION Organizational Unit Legal Name The Regents of the University of California CNR: Environmental Science, Policy & Management Address (give city, county, state, and zip code) Name and telephone number of the person to be contacted on matters involving this application (give area code) University of California, Berkeley **Technical Contact Administrative Contact** Sponsored Projects Office Vincent H. Resh Lynn Deetz 336 Sproul Hall, Alameda County (510) 642-3763 (510) 643-6113 Berkeley, CA 94720-5940 6. EMPLOYER IDENTIFICATION NUMBER (EIN): 7. TYPE OF APPLICANT: (enter appropriate letter in box) $\Box \Box$ H. Independent School Dist. A. State D 2 i. State Controlled Institution of Higher Learning B. County C. Municipal J. Private University 8. TYPE OF APPLICATION: D. Township K. Indian Tribe E. Interstate L. Individual ☐ Revision **⊠** New X Continuation M. Profit Organization F. Intermunicipal If Revision, enter appropriate letter(s) in boxes(es) G. Special District N. Other (Specify): 9. NAME OF FEDERAL AGENCY: A. Increase Award B. Decrease Award C. Increase Duration D. Decrease Duration Other (specify): Department of the Interior, 10. CATALOG OF FEDERAL DOMESTIC 11. DESCRIPTIVE TITLE OF APPLICANT'S PROJECT: ASSISTANCE NUMBER: Assessing Ecological and Economic Impacts of the Chinese Mitten Crab in TILE the Bay-Delta Ecosystem 12. AREAS AFFECTED BY PROJECT (cities, counties, states, etc.) California 13. PROPOSED PROJECT: 14. CONGRESSIONAL DISTRICTS OF: Ending Date Start Date a. Applicant b. Project 06/30/02 07/01/99 9th 9th 16. IS APPLICATION SUBJECT TO REVIEW BY STATE EXECUTIVE ORDER 12372 PROCESS? 15. ESTIMATED FUNDING: a. Federal a. YES, THIS PREAPPLICATION/APPLICATION WAS MADE AVAILABLE TO THE 149,429 STATE EXECUTIVE ORDER 12372 PROCESS FOR REVIEW ON: b. Applicant S DATE c. State \$ b. NO. X PROGRAM IS NOT COVERED BY E.Q. 12372 d. Local S X OR PROGRAM HAS NOT BEEN SELECTED BY STATE FOR REVIEW e. Other S 17. IS THE APPLICANT DELINQUENT ON ANY FEDERAL DEBT? f. Program Income g. TOTAL ⊠ No ☐ Yes 149,429 If "Yes," attach an explanation. 18. TO THE BEST OF MY KNOWLEDGE AND BELIEF, ALL DATA IN THIS APPLICATION/PREAPPLICATION ARE TRUE AND CORRECT THE DOCUMENT HAS BEEN DULY AUTHORIZED BY THE GOVERNING BODY OF THE APPLICANT AND THE APPLICANT WILL COMPLY WITH THE ATTACHED ASSURANCES IF THE ASSISTANCE IS AWARDED a. Typed Name of Authorized Representative c. Telephone number b. Title (510) 643-6113 Lvnn Deetz Senior Research Administrator

Previous Editions Not Usable

d. Signature of Authorized Representative

Standard Form 424 (REV 4-88) Prescribed by OMB Circular A-102

e. Date Signed

| | BUDGET INFO | RMATIONNon-Co | enstruction Progra | ms | | ON | IB Approval No. 0348-00 | | |
|----------------------|----------------------------|--------------------------|-------------------------------|-------------|-----------------|-------------------------------|-------------------------|--|--|
| | | SECTION A - BUDGET ! | | | | | | | |
| Grant Program | Catalog of Federal | | | | | | | | |
| Function or Activity | Domestic Assistance Number | Estimated Una Federal | bilgated Funds Non-Federal | | New Federal | or Revised Budget Non-Federal | | | |
| (a) | (D) | (C) | (a) | (e) | | (T) | (g) | | |
| 1. | | \$ | \$ | \$ | 53,004.00 | \$ | \$ 53,004. | | |
| 2. | | W-W- | | | | | | | |
| 3. | | | | | | | | | |
| 4. | | | | | | | | | |
| 5. TOTALS | | \$ | \$ | \$ | 53,004.00 | \$ | \$ 53,004. | | |
| | | SECTION B - BUDGET (| GRANT PROGRAM, | EUNCTIC | N OD ACTIVITIE | c | 1 7074 | | |
| 6. Object Class Ca | tegories | (1) | (2) | (3) | ON OR ACTIVITIE | (4) | TOTAL (5) | | |
| a. Personnel | | \$27,046 | \$ | \$ | | \$ | \$27,0 | | |
| b. Fringe Benefi | its | \$5,032 | | | | | \$5,0 | | |
| c. Travel | | \$1,420 | | | | • | \$1,4 | | |
| d. Equipment | | | | | | | | | |
| e. Supplies | | \$3,225 | | | | | \$3, | | |
| f. Contractual | | | | | | | | | |
| g. Construction | 1 | | | | | | | | |
| h. Other | | | | | | | | | |
| I. Total Direct C | harges (Sum of 6a - 6h) | \$36,723 | | | | | \$36, | | |
| J. Indirect Char | ges | \$16,281 | | | | | \$16,2 | | |
| k. TOTALS (Sum | of 61 and 6j) | \$53,004 | \$ | | | \$ | \$53.0 | | |
| | | | | | | | | | |
| 7. Program Income | э | \$_ | \$ | \$ | | s | \$ | | |

| | | SECTION C - NON- | EDERAL RESOURCES | | |
|--|--|----------------------|------------------|-------------------|-------------|
| (a) Grant Program | ··· | (b) Applicant | (c) State | (d) Other Sources | (e) TOTALS |
| е. | | \$ | \$ | s | \$ |
| 9. | | | | | |
| 10. | | | | | |
| 11. | | | | | |
| 12. TOTALS (sum of lines 8 and 11) | | \$ | s | s | s |
| | | SECTION D - FORCE | ASTED CASH NEEDS | | |
| | Total for 1st Year | 1st Quarter | 2nd Quarter | 3rd Quarter | 4th Quarter |
| 13. Federal | | s | \$ | s | s |
| 14. Nonfederal | | | | | |
| 15. TOTAL (sum of lines 13 and 14) | <u> </u> | s | \$ | s | s |
| SECTION E- BUDGET ESTIMATES | S OF FEDERAL NEED | S FOR BALANCE OF TH | IE PROJECT | | |
| | | (to) First | (c) Second | (a) Third | (e) Fourth |
| 16. | | | | | |
| 17. | | s | \$ | s | \$ |
| 18. | | | | | |
| 19. | | | | | |
| 20. TOTALS (sum of lines 16 - 19) | | \$53,004 | \$52,802 | \$43,624 | \$ |
| | SECTION F - OTHE (Attach additional She | ER BUDGET INFORMATI | ON | | |
| 21. Direct Charges: None is out of the c | ordinary | 22. Indirect Charges | s: 50.4% MTDC | | |
| 23. Remarks MTDC = \$32,303 | | | | | |

SF 424A (4-88) Page 2

Prescribed by OMB Circular A-102

ASSURANCES - NON-CONSTRUCTION PROGRAMS

Public reporting burden for this collection of information is estimated to average 15 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (0348-0040), Washington, DC 20503.

PLEASE DO NOT RETURN YOUR COMPLETED FORM TO THE OFFICE OF MANAGEMENT AND BUDGET. SEND IT TO THE ADDRESS PROVIDED BY THE SPONSORING AGENCY.

NOTE: Certain of these assurances may not be applicable to your project or program. If you have questions, please contact the awarding agency. Further, certain Federal awarding agencies may require applicants to certify to additional assurances. If such is the case, you will be notified.

As the duly authorized representative of the applicant, I certify that the applicant:

- Has the legal authority to apply for Federal assistance and the institutional, managerial and financial capability (including funds sufficient to pay the non-Federal share of project cost) to ensure proper planning, management and completion of the project described in this application.
- 2. Will give the awarding agency, the Comptroller General of the United States and, if appropriate, the State, through any authorized representative, access to and the right to examine all records, books, papers, or documents related to the award; and will establish a proper accounting system in accordance with generally accepted accounting standards or agency directives.
- Will establish safeguards to prohibit employees from using their positions for a purpose that constitutes or presents the appearance of personal or organizational conflict of interest, or personal gain.
- Will initiate and complete the work within the applicable time frame after receipt of approval of the awarding agency.
- Will comply with the Intergovernmental Personnel Act of 1970 (42 U.S.C. §§4728-4763) relating to prescribed standards for merit systems for programs funded under one of the 19 statutes or regulations specified in Appendix A of OPM's Standards for a Merit System of Personnel Administration (5 C.F.R. 900, Subpart F).
- 6. Will comply with all Federal statutes relating to nondiscrimination. These include but are not limited to: (a) Title VI of the Civil Rights Act of 1964 (P.L. 88-352) which prohibits discrimination on the basis of race, color or national origin; (b) Title 1X of the Education Amendments of 1972, as amended (20 U.S.C. §§1681-1683, and 1685-1686), which prohibits discrimination on the basis of sex; (c) Section 504 of the Rehabilitation

- Act of 1973, as amended (29 U.S.C. §794), which prohibits discrimination on the basis of handicaps; (d) the Age Discrimination Act of 1975, as amended (42 U.S.C. §§6101-6107), which prohibits discrimination on the basis of age; (e) the Drug Abuse Office and Treatment Act of 1972 (P.L. 92-255), as amended, relating to nondiscrimination on the basis of drug abuse; (f) the Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment and Rehabilitation Act of 1970 (P.L. 91-616), as amended, relating to nondiscrimination on the basis of alcohol abuse or alcoholism; (g) §§523 and 527 of the Public Health Service Act of 1912 (42 U.S.C. §§290 dd-3 and 290 ee 3), as amended, relating to confidentiality of alcohol and drug abuse patient records; (h) Title VIII of the Civil Rights Act of 1968 (42 U.S.C. §§3601 et seq.), as amended, relating to nondiscrimination in the sale, rental or financing of housing; (i) any other nondiscrimination provisions in the specific statute(s) under which application for Federal assistance is being made; and, (j) the requirements of any other nondiscrimination statute(s) which may apply to the application.
- 7. Will comply, or has already complied, with the requirements of Titles II and III of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (P.L. 91-646) which provide for fair and equitable treatment of persons displaced or whose property is acquired as a result of Federal or federally-assisted programs. These requirements apply to all interests in real property acquired for project purposes regardless of Federal participation in purchases.
- 8. Will comply, as applicable, with provisions of the Hatch Act (5 U.S.C. §§1501-1508 and 7324-7328) which limit the political activities of employees whose principal employment activities are funded in whole or in part with Federal funds.

- 9. Will comply, as applicable, witi, the provisions of the Davis-Bacon Act (40 U.S.C. §§276a to 276a-7), the Copeland Act (40 U.S.C. §276c and 18 U.S.C. §874), and the Contract Work Hours and Safety Standards Act (40 U.S.C. §§327-333), regarding labor standards for federally-assisted construction subagreements.
- 10. Will comply, if applicable, with flood insurance purchase requirements of Section 102(a) of the Flood Disaster Protection Act of 1973 (P.L. 93-234) which requires recipients in a special flood hazard area to participate in the program and to purchase flood insurance if the total cost of insurable construction and acquisition is \$10,000 or more.
- 11. Will comply with environmental standards which may be prescribed pursuant to the following: (a) institution of environmental quality control measures under the National Environmental Policy Act of 1969 (P.L. 91-190) and Executive Order (EO) 11514; (b) notification of violating facilities pursuant to EO 11738; (c) protection of wetlands pursuant to EO 11990; (d) evaluation of flood hazards in floodplains in accordance with EO 11988; (e) assurance of project consistency with the approved State management program developed under the Coastal Zone Management Act of 1972 (16 U.S.C. §§1451 et seq.); (f) conformity of Federal actions to State (Clean Air) Implementation Plans under Section 176(c) of the Clean Air Act of 1955, as amended (42 U.S.C. §§7401 et seq.); (g) protection of underground sources of drinking water under the Safe Drinking Water Act of 1974, as amended (P.L. 93-523); and, (h) protection of endangered species under the Endangered Species Act of 1973, as amended (P.L. 93-205).

- 12. Will comply with the Wild and Scenic Rivers Act of 1968 (16 U.S.C. §§1271 et seq.) related to protecting components or potential components of the national wild and scenic rivers system.
- Will assist the awarding agency in assuring compliance with Section 106 of the National Historic Preservation Act of 1966, as amended (16 U.S.C. §470), EO 11593 (identification and protection of historic properties), and the Archaeological and Historic Preservation Act of 1974 (16 U.S.C. §§469a-1 et seq.).
- Will comply with P.L. 93-348 regarding the protection of human subjects involved in research, development, and related activities supported by this award of assistance.
- 15. Will comply with the Laboratory Animal Welfare Act of 1966 (P.L. 89-544, as amended, 7 U.S.C. §§2131 et seq.) pertaining to the care, handling, and treatment of warm blooded animals held for research, teaching, or other activities supported by this award of assistance.
- Will comply with the Lead-Based Paint Poisoning Prevention Act (42 U.S.C. §§4801 et seq.) which prohibits the use of lead-based paint in construction or rehabilitation of residence structures.
- Will cause to be performed the required financial and compliance audits in accordance with the Single Audit Act Amendments of 1996 and OMB Circular No. A-133, "Audits of States, Local Governments, and Non-Profit Organizations."
- Will comply with all applicable requirements of all other Federal laws, executive orders, regulations, and policies governing this program.

SIGNATURE OF AUTHORIZED CERTIFYING OFFICIAL

TITLE

APPLICANT ORGANIZATION

The Regents of the University of California

Senior Research Administrator

DATE SUBMITTED

April 14, 1999

Attachment D Terms and Conditions for State (CALFED) Funds

This section provides contract terms and conditions applicable to contracts issued under State (CALFED) funds. The specific terms and conditions may vary, depending on the applicant category (State entities, Federal and other public entities, non-profit organizations, and private entities), and the type of project (Public Works/Construction or Services), as identified in Table D-1. Specific documents that should be submitted with the proposal are shown in Table D-1.

The general terms and conditions which will apply to Category III contracts funded with Proposition 204 funding are provided below.

In addition to these general terms and conditions, specific additional standard clauses will be applicable depending on the type of project and applicant category. Table D-1 provides a summary of those standard clauses for different types of projects and different applicant categories. Those standard clauses are provided at the end of this attachment.

- 1. Term of Contract: The term of the agreement will be dependent on the project and may range from 1 to 3 years. The agreement shall not become effective until fully executed by the parties and approved by the Department of General Services.
- 2. Payment Schedule: No funds will be disbursed by State or National Fish and Wildlife Foundation (NFWF) to Contractor without 1) an executed copy of the Contract, 2) receipt of an original invoice with supporting documentation, and 3) receipt and satisfactory completion of deliverables and/or phases of work as set forth in the agreement, including quarterly financial and programmatic reports. Payments shall be in arrears within 30 days of receipt of invoice by CALFED.
- 3. Budget Variances: Variances which exceed ten percent of a project task's approved budgeted amount should have approval in advance, with written explanations of programmatic changes to cover such variances but must remain within the maximum contract amount.
- 4. Subcontracts: Contractors are responsible for all subcontracted work. Subcontract terms and conditions must include all applicable contract terms and conditions as presented herein. Subcontractor agreements require approval by the State or NFWF, unless the subcontract was included and approved as part of the main proposal. Any amendments to subcontract must be approved by the State or NFWF. In obtaining subcontracts, contractor must obtain at least 3 competitive bids for all subcontracted work, or comply with the provisions of Government Code Section 4525 et seq., if applicable, or submit written justification for and obtain the State's or NFWF's approval of non-compliance with these requirements.
- 5. Substitution: Should the State or NFWF be dissatisfied with the work of subcontractors or employees of the contractor, the State or NFWF may require the contractor to substitute different qualified subcontractors or employees. The State or NFWF must approve such substitutions in advance of providing applicable services.
- 6. Conflict of Interest: Contractor shall comply with all applicable State laws and rules pertaining to conflict of interest, including but not limited to Government Code 1090 and Public Contract Code 10410 and 10411.
- 7. Standard of Professionalism: Contractor shall conduct all work consistent with the professional standards for the industry and type of work being performed under the contract.
- 8. Rights in Data: All data and information obtained and/or received under contract shall be in the public domain. Contractor shall have the right to disclose, disseminate and use, in whole or part, any

final form data and information received, collected and developed under this agreement, subject to inclusion of appropriate acknowledgment of credit to the State or NFWF, CALFED, and all cost sharing partners for their financial support. Use of draft data requires pre-approval by State or NFWF and CALFED. Contractor shall not sell or grant rights to a third party who intends to sell such product as a profit-making venture.

- 9. Indemnification: The Contractor agrees to indemnify, defend and hold harmless the CALFED agencies, the State of California, the Resources Agency, Department of Water Resources, and National Fish and Wildlife Foundation and their officers, agents and employees from any and all claims and losses accruing or resulting to any or all contractors, subcontractors, material persons, laborers, and any other person, firm or corporation furnishing or supplying work services, materials or supplies in connection with the performance of this contract, and from any and all claims and losses accruing or resulting to any person, firm or corporation who may be injured or damaged by the Contractor in the performance of this contract.
- 10. Independent Status: The Contractor, and the officers, agents and employees of Contractor, in the performance of the contract, shall act in an independent capacity and not as officers or employees or agents of the State of California, NFWF, CALFED Agencies, the Resources Agency, or Department of Water Resources.
- 11. Termination Clause: The State or NFWF may terminate this agreement and be relieved of the payment of any consideration to Contractor should Contractor fail to perform the covenants herein contained at the time and in the manner herein provided. In the event of such termination the State or NFWF may proceed with the work in any manner deemed proper by the State. The cost to the State shall be deducted from any sum due the Contractor under this agreement, and the balance, if any shall be paid the Contractor upon demand.
- 12. Assignment: Without the written consent of the State, this agreement is not assignable by Contractor either in whole or in part.
- 13. Integration Clause: No alteration or variation of the terms of this contract shall be valid unless made in writing and signed by the parties hereto, and no oral understanding or agreement not incorporated herein, shall be binding on any of the parties hereto. This contract may be amended upon mutual written agreement of the parties and approved by State or NFWF and CALFED.
- 14. Consideration: The consideration to be paid Contractor as provided herein, shall be in compensation for all of the Contractor's expenses incurred in the performance hereof, including travel and per diem, unless otherwise expressly so provided.
- 15. Dispute Resolution: Any claim that Contractor may have regarding the performance of this agreement including, but not limited to, claims for additional compensation or extension of time, shall be submitted to the Executive Director, CALFED, within thirty days of its accrual, CALFED and Contractor shall then attempt to negotiate a resolution of claim and process an amendment to this agreement to implement the terms of any such resolution.
- 16. Time is of the essence in this agreement.

State of California

DEPARTMENT OF WATER RESOURCES

| The Resources Agency |
|----------------------|
| Agreement No |
| Exhibit |

STANDARD CLAUSES -INTERAGENCY AGREEMENTS

Audit Clause. For contracts in excess of \$10,000, the contracting parties shall be subject to the examination and audit of the State Auditor for a period of three years after final payment under the contract. (Government Code Section 8546.7).

Availability of Funds. Work to be performed under this contract is subject to availability of funds through the State's normal budget process.

Interagency Payment Clause. For services provided under this agreement, charges will be computed in accordance with State Administrative Manual Section 8752 and 8752.1.

Termination Clause. Either State agency may terminate this contract upon 30 days advance written notice. The State agency providing the services shall be reimbursed for all reasonable expenses incurred up to the date of termination.

Severability. If any provision of this Agreement is held invalid or unenforceable by any court of final jurisdiction, it is the intent of the parties that all other provisions of this Agreement be construed to remain fully valid, enforceable, and binding on the parties.

Y2K Language. The Contractor warrants and represents that the goods or services sold, leased, or licensed to the State of California, its agencies, or its political subdivisions, pursuant to this Agreement are "Year 2000 compliant" For purposes of this Agreement, a good or service is year 2000 compliant if it will continue to fully function before, at, and after the Year 2000 without interruption and, if applicable, with full ability to accurately and unambiguously process, display, compare, calculate, manipulate, and otherwise utilize date information. This warranty and representation supersedes all warranty disclaimers and limitations and all limitations on liability provided by or through the Contractor.

| State of California The Resources Agency | Agreement No. | |
|---|--|--|
| DEPARTMENT OF WATER RESOURCES | Exhibit | |
| STANDARD CLAUSES — SMALL BUSINESS PREFERENCE AND CONTRACT | FOR IDENTIFICATION NUMBER | |
| NOTICE TO ALL BIDDERS: | | |
| Section 14835, et. seq. of the California Gorpreference be given to bidders who qualify as of this law, including the definition of a small but in Title 2, California Code of Regulations, Sec available upon request. Questions regarding directed to the Office of Small and Minority Business preference, you must submit a coyour bid. | s a small business. The rules and regulations usiness for the delivery of service, are contained tion 1896, et. seq. A copy of the regulations is the preference approval process should be susiness at (916) 322-5060. To claim the small | |
| Are you claiming preference as a small busines | ss? | |

____ No

____ Yes*

^{*}Attach a copy of your certification approval letter.

U.S. Department of the Interior

Other Responsibility Matters, Drug-Free Workplace Requirements and Lobbying

Persons signing this form should refer to the regulations referenced below for complete instructions:

Certification Regarding Debarment, Suspension, and Other Responsibility Matters - Primary Covered Transactions - The prospective primary participant further agrees by submitting this proposal that it will include the clause titled, "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion - Lower Tier Covered Transaction," provided by the department or agency entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions. See below for language to be used; use this form for certification and sign; or use Department of the Interior Form 1954 (DI-1954). (See Appendix A of Subpart D of 43 CFR Part 12.)

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion - Lower Tier Covered Transactions - (See Appendix B of Subpart D of 43 CFR Part 12.)

Certification Regarding Drug-Free Workplace Requirements - Alternate I. (Grantees Other Than Individuals) and Alternate II. (Grantees Who are Individuals) - (See Appendix C of Subpart D of 43 CFR Part 12)

Signature on this form provides for compliance with certification requirements under 43 CFR Parts 12 and 18. The certifications shall be treated as a material representation of fact upon which reliance will be placed when the Department of the Interior determines to award the covered transaction, grant, cooperative agreement or loan.

PART A: Certification Regarding Debarment, Suspension, and Other Responsibility Matters - Primary Covered Transactions

CHECK__IF THIS CERTIFICATION IS FOR A PRIMARY COVERED TRANSACTION AND IS APPLICABLE.

- (1) The prospective primary participant certifies to the best of its knowledge and belief, that it and its principals:
 - (a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;
 - (b) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
 - (c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (1)(b) of this certification; and
 - (d) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal. State or local) terminated for cause or default.
- (2) Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

PART B: Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion - Lower Tier Covered Transactions

CHECK_IF THIS CERTIFICATION IS FOR A LOWER TIER COVERED TRANSACTION AND IS APPLICABLE

- (1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.
- (2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

PART C: Certification Regarding Drug-Free Workplace Requirements

CHECK_IF THIS CERTIFICATION IS FOR AN APPLICANT WHO IS NOT AN INDIVIDUAL.

Alternate I. (Grantees Other Than Individuals)

- A. The grantee certifies that it will or continue to provide a drug-free workplace by
 - (a) Publishing a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the grantee's workplace and specifying the actions that will be taken against employees for violation of such prohibition;
 - (b) Establishing an ongoing drug-free awareness program to inform employees about-

(1) The dangers of drug abuse in the workplace;

(2) The grantee's policy of maintaining a drug-free workplace;

(3) Any available drug counseling, rehabilitation, and employee assistance programs; and

- (4) The penalties that may be imposed upon employees for drug abuse violations occurring in the workplace;
- (c) Making it a requirement that each employee to be engaged in the performance of the grant be given a copy of the statement required by paragraph (a);
- (d) Notifying the employee in the statement required by paragraph (a) that, as a condition of employment under the grant, the employee will —

(1) Abide by the terms of the statement; and

- (2) Notify the employer in writing of his or her conviction for a violation of a criminal drug statute occurring in the workplace no later than five calendar days after such conviction;
- (e) Notifying the agency in writing, within ten calendar days after receiving notice under subparagraph (d)(2) from an employee or otherwise receiving actual notice of such conviction. Employers of convicted employees must provide notice, including position title, to every grant officer on whose grant activity the convicted employee was working, unless the Federal agency has designated a central point for the receipt of such notices. Notice shall include the identification numbers(s) of each affected grant;
- (f) Taking one of the following actions, within 30 calendar days of receiving notice under subparagraph (d)(2), with respect to any employee who is so convicted --

(1) Taking appropriate personnel action against such an employee, up to and including termination, consistent with the requirements of the Rehabilitation Act of 1973, as amended; or

(2) Requiring such employee to participate satisfactorily in a drug abuse assistance or rehabilitation program approved for such purposes by a Federal, State, or local health, law enforcement, or other appropriate agency;

- (g) Making a good faith effort to continue to maintain a drug-free workplace through implementation of paragraphs (a) (b), (c), (d), (e) and (f).
- B. The grantee may insert in the space provided below the site(s for the performance of work done in connection with the specific grant:

| Place of Performance (Street address, city, county, state, zip code) | |
|--|--|
| | |
| Checkif there are workplaces on file that are not identified here. | |

CHECK__IF THIS CERTIFICATION IS FOR AN APPLICANT WHO IS AN INDIVIDUAL.

Alternate II. (Grantees Who Are Individuals)

- (a) The grantee certifies that, as a condition of the grant, he or she will not engage in the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance in conducting any activity with the grant;
- (b) If convicted of a criminal drug offense resulting from a violation occurring during the conduct of any grant activity, he or she will report the conviction, in writing, within 10 calendar days of the conviction, to the grant officer or other designee, unless the Federal agency designates a central point for the receipt of such notices. When notice is made to such a central point, it shall include the identification number(s) of each affected grant

PART E: Certification Regarding Lobbying
Certification for Contracts, Grants, Loans, and Cooperative Agreements

CHECK IF CERTIFICATION IS FOR THE AWARD OF ANY OF THE FOLLOWING AND THE AMOUNT EXCEEDS \$100,000: A FEDERAL GRANT OR COOPERATIVE AGREEMENT; SUBCONTRACT, OR SUBGRANT UNDER THE GRANT OR COOPERATIVE AGREEMENT.

CHECK IF CERTIFICATION IS FOR THE AWARD OF A FEDERAL LOAN EXCEEDING THE AMOUNT OF \$150,000, OR A SUBGRANT OR SUBCONTRACT EXCEEDING \$100,000, UNDER THE LOAN.

The undersigned certifies, to the best of his or her knowledge and belief, that:

- (1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, and officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
- (2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
- (3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

As the authorized certifying official, I hereby certify that the above specified certifications are true.

SIGNATURE OF AUTHORIZED CERTIFYING OFFICIAL

Lynn Deetz, Senior Research Administrator

DATE April 14, 1999

TYPED NAME AND TITLE